

CLAIMS

- 1. A film-forming method for a copper oxide thin film low-friction material, characterized by forming a copper oxide thin film mainly containing CuO on a substrate for deposition, in vacuum by plasma deposition.**
- 2. The film-forming method according to Claim 1, wherein the copper oxide thin film is formed while a mixed gas of a rare gas and oxygen is introduced.**
- 3. The film-forming method according to Claim 1 or 2, wherein the crystal of the copper oxide thin film is oriented.**
- 4. The film-forming method according to any one of Claims 1 to 3, wherein the copper oxide thin film is formed by plasma sputtering by using CuO as a target.**
- 5. A copper oxide thin film low-friction material which is formed on a substrate, characterized by containing mainly CuO in its composition and having friction coefficients of 0.06 or less both in the atmosphere and in vacuum at 3×10^{-5} Pa.**
- 6. The copper oxide thin film low-friction material according to Claim 5, wherein the copper oxide thin film is formed by plasma deposition.**
- 7. The copper oxide thin film low-friction material according to Claim 5 or 6, wherein the crystal of the copper oxide thin film is oriented.**
- 8. A sliding device, characterized by having a sliding face coated with the copper oxide thin film low-friction material according to any one of Claims 5 to 7.**